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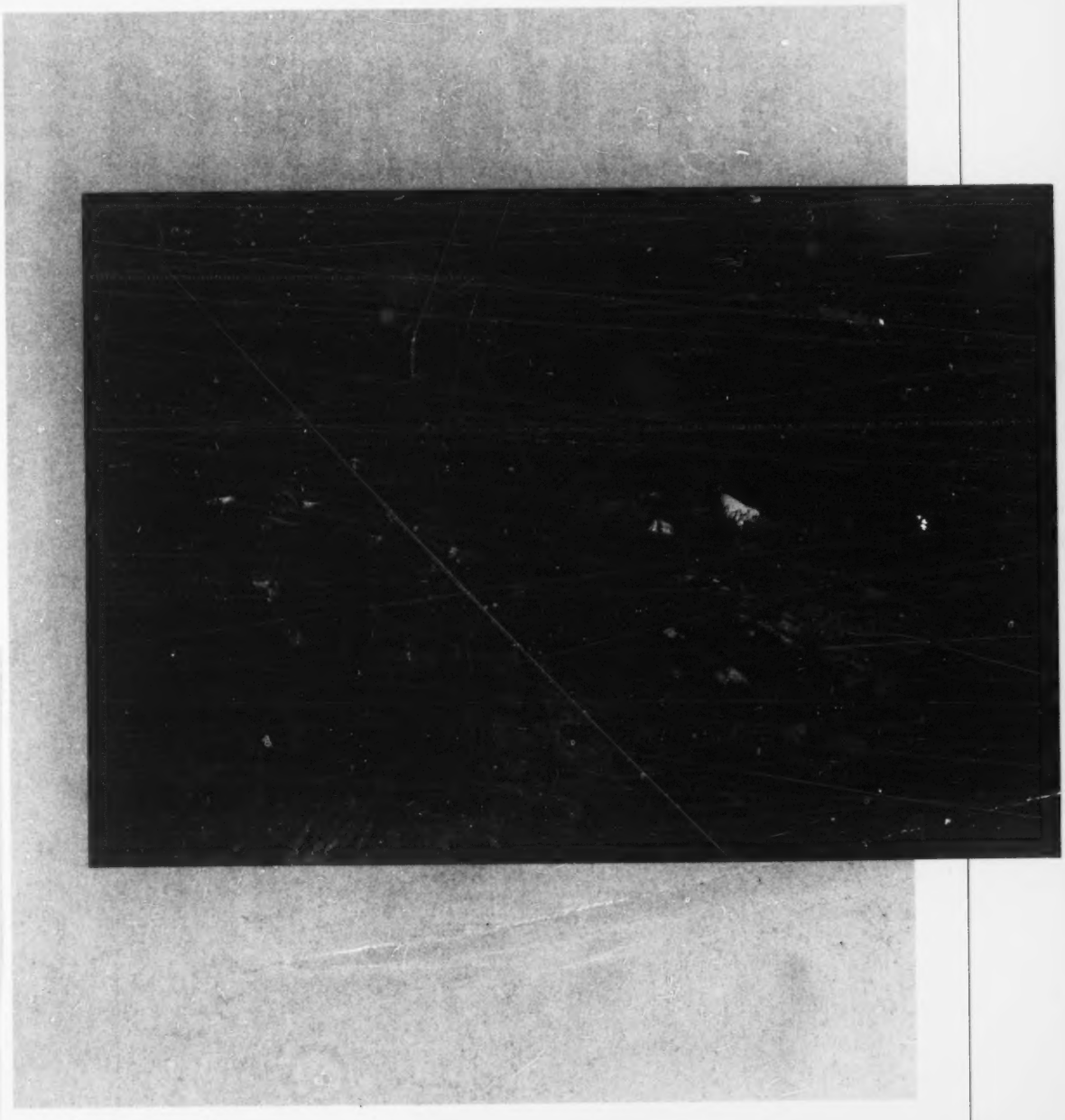

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About the cover

"The Overturned Oxcart (The Unfortunate Farmer)" was painted in 1875 by German artist, Heinrich von Zügel (1850–1941). The artist, originally named Zügel, was the son of a sheep farmer. Zügel was a self-taught artist who became highly regarded as an animal painter by the turn of the century. He received the patent of nobility in 1907, after which he was known as Heinrich von Zügel. Most of the artist's paintings were large oils depicting agricultural scenes, particularly those in which cattle or sheep are with farmers, in herds, or in pastures. The 18¾ × 26½ inch oil-on-canvas reproduced on the cover is typical of von Zügel's early realistic style.

Reproduction of this painting (gift of the Rene von Schleinitz Foundation) was made possible through the Milwaukee Art Museum.

Dog owners and their use of veterinary services

The Charles, Charles Research Group recently completed a study of the US market for companion animal veterinary services.[1] A summary of major findings from the study was presented in the Oct 15 issue of the *JAVMA* as the first of a 5-part series covering the full report. This second article presents important findings regarding dog ownership. In addition, dog-owning households use of and expenditures for veterinary services are addressed.

Dog ownership statistics

In a survey of 29,535 nationally representative households, 38.2% (11,287) owned one or more dogs on Dec 31, 1987. Most dog-owning households had only 1 dog, although 30% had 2 or more dogs. Overall, the mean number of dogs owned was 1.5.

When projected to the total of 90.7 million households at the end of 1987, the estimated number of dog-owning households on Dec 31, 1987 was 34.7 million. Also, the projected population of dogs owned at the end of 1987 was 52.4 million.

Dog ownership varied by geographic region. The northeastern region had the lowest percentage (32.1%) of dog-owning households (Table 1). In contrast, the southern region had the highest percentage (41.4%) of dog ownership.

In the survey, dog owners were asked to identify their dogs' age brackets. Almost 40% of dogs were in the 2- to 5-year-old bracket, and just over 25% were in the 6- to 10-year-old bracket. In comparison, 20% were in the ≤1-year-old bracket, and another 15% were >10 years old.

If a household owned a dog, there was a 50% chance that household had another species of companion animal. The most common was a cat, with 42% of owners reporting cat ownership. Besides cats, 11% had pet birds and 6% had a horse.

Demographic profile of dog owners

Four demographic variables that differentiate dog-owning households from households that do not own a companion animal are household income, family size, home ownership, and city population. Table 2 illustrates how these variables differentiate the 2 groups. For example, the percentage of dog owners in the <$20,000 bracket (33%) was less than the corresponding percentage for the "non-owner" group (43%). Conversely, a higher percentage of dog owners was in the ≥$30,000 bracket (49% vs 39%). Therefore, dog ownership appears to be positively correlated with annual household income.

Differences between dog-owning and non-dog-

Table 1—Percentage of dog-owning households by US region

US region*	No. households surveyed	No. (%) dog-owning households†	Margin of error‡
Northeast	6,378	2,047 (32.1)	±1.2%
North Central	7,602	2,879 (37.9)	±1.1
South	9,851	4,079 (41.4)	±1.0
West	5,704	2,282 (40.0)	±1.3
Total	29,535	11,287 (38.2)	±0.6

*Regional designations are same as those used by US Census Bureau. †Number of dog-owning households includes only those that owned one or more dogs on Dec 31, 1987. ‡Margin of error determined with 95% confidence interval.

Table 2—Comparison of selected demographic profiles for dog-owning households with households not owning companion animals

Variable	Category	Dog-owning households (%)	Households not owning a companion animal (%)	Difference*
Household income	<$20,000	33	43	−10
	$20,000 to $29,999	18	18	0
	≥$30,000	49	39	+10
Family size	One person	13	37	−24
	Two people	30	36	−6
	Three people	23	12	+11
	Four or more people	34	15	+19
Home ownership	Own/buying	81	68	+13
	Renting	19	32	−13
City population	<50,000	34	24	+10
	50,000 to 1.9 million	38	39	−1
	≥2 million	28	37	−9

*Difference column shows the result of subtracting the percentage for households not owning from the corresponding percentage for dog owners. The differences give an indication of the relative effect of the variable, with larger category differences indicating a greater effect. If a variable had no effect, all category differences would equal zero. The base for calculating percentages is 11,287 for dog-owning households and 12,176 for non-owning households.

Prepared by C. Michael Troutman, PhD, Charles, Charles Research Group, Overland Park, Kan. Second in a series of 5 synopses from the entire report, which became available Sept 15 (see *JAVMA*, Oct 1, 1988, p. 765).

Table 3—Comparison of family life stage profiles for dog-owning households with households not owning companion animals

Family life stage	Household description	Dog-owning households (%)	Households not owning a companion animal (%)	Difference
Young single	One-member household, age <35 years	3	8	−5
Middle-aged single	One-member household, age 35-65 years	7	15	−8
Older single	One-member household, age >65 years	4	14	−10
Young couple	Two members, <45 years old, no children	9	6	+3
Middle-aged couple	Two members, >45 years old, no children	11	12	−1
Retired older couple	Two retirees, >45 years old, no children	8	17	−9
Young parent	Families with children <6 years old, adults <45 years old	18	11	+7
Middle-aged parent	Families with children >6 years old, adults <45 years	19	6	+13
Older parent	Families with children at home, adults >45 years old	21	10	+11
Other*		1	1	

*"Other" refers to individuals living with a roommate. The base for calculating percentages is 11,287 for dog-owning households and 12,176 for non-owning households.

owning households can be seen more clearly in the right-hand column of Table 2, which shows differences between corresponding percentages. In general, the greater the differences, the more important the demographic variable was in differentiating the 2 groups. The pattern of differences for the family size variable illustrates that dog owners are more likely to be larger families. Also, dog owners are more likely to own their home, and to live in a city with a small population.

Another important way to examine dog ownership is family life stage. Table 3 contrasts dog-owning and non-dog-owning households across various family life stages. These life stages embody several key demographic variables including family size, age of the head(s) of household, and presence of children (see life stage descriptions in Table 3). Among singles, for instance, the percentages for non-dog owners were higher than corresponding percentages for dog owners, as evidenced by negative differences. However, the difference was less for young singles than for middle-aged or older singles, which indicates that dog ownership is less common among the older singles groups.

Table 4—Use of veterinary services by households owning one, two, three, or four dogs

	All dog-owning household*	No. of dogs owned†			
		1	2	3	4
Percentage of households that had dog seen by veterinarian	77.6	76.7	81.1	77.2	76.3
Mean number of veterinary visits per dog-owning households	2.4	1.9	2.9	3.8	4.3
Mean number of veterinary visits per dog	1.5	1.9	1.5	1.3	1.1

*Percentage based on a sample of 11,995 households that owned a dog anytime in 1987. †Percentages for subgroups based on samples of 8,182, 2,540, 751, and 241 for households owning 1, 2, 3, and 4 dogs, respectively.

Among the 3 groups of "couples" (ie, no children), relatively more young couples owned a dog (9% vs 6%), but couples were similar to singles in that dog ownership was less common among older couples. In contrast, dog ownership was far more common in households with children (ie, the parent groups). Almost 60% of all dog-owning households were young, middle-aged, or older parents, whereas about one-fourth of non-dog owners were in the parent group. Therefore, the presence of a child or teen in the home is highly correlated with dog ownership.

Use of veterinary services

Dog owners were asked how many times their dog(s) were examined or treated by a veterinarian during 1987. Table 4 presents these findings for the entire sample of dog-owning households, and for subgroups based on the number of dogs owned. Overall, 77.6% of dog owners had a dog examined or treated at least once during 1987. For each subgroup, the percentage that obtained veterinary care was similarly high.

Table 4 shows further that the mean number of veterinary visits per household in 1987 was 2.4, and that the mean number of visits per dog was 1.5. Among the groups, however, 2 patterns were clearly evident. First, as number of dogs owned increased, mean number of visits per household likewise increased. In contrast, the mean number of visits per dog decreased as the number of dogs owned increased. Compared with "1-dog" owners, those who owned 2 or more dogs consumed more veterinary care, but multiple-dog households actually consumed less veterinary care per dog.

Dog owner expenditures for veterinary services and products were estimated by analyzing households that owned only dogs during 1987. Households that owned more than one species of companion animal gave their expenditures for all species, whereas "dog-exclusive" households provided expenditures for just dogs, and their responses gave a better indication of the amount spent for veterinary services for dogs.

There were 5,281 dog-exclusive households that spent an average of $86.73 for veterinary services and products in 1987. On average, this group owned 1.3 dogs and they had each dog examined 1.9 times during the year. Therefore, the estimated cost per dog was $65.36, and the estimated cost per veterinary visit was $34.96. Given the mean number of veterinary visits for the entire sample of dog-owning households, the estimated total expenditures for veterinary care for dogs reached $3,012 million in 1987.

Conclusions and implications

The survey findings show that dog ownership varies among the 4 major US regions. In particular, the northeastern region has the lowest percentage of dog-owning households. In addition, dog ownership appears to be systematically related to several demographic variables. In general, families with childern are more likely to own a dog.

In comparison with other companion animals, dogs receive more veterinary care.[1] Nevertheless, almost one-fourth of dog owners did not obtain veterinary care in 1987, and this group represents a potential market opportunity for the veterinary profession. If these owners could be encouraged to obtain more regular care (eg, once a year), it would significantly boost national demand for veterinary services.

Multiple dog-owning households may be another market opportunity. Compared with those who own one dog, these owners obtain less veterinary care per dog. if they could be encouraged to obtain additional care for each of their dogs, this would significantly boost demand.

1. Charles, Charles Research Group. The veterinary services market for companion animals. Schaumburg, Ill: American Veterinary Medical Association, 1988.

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